EMI
COMMUNICATIONS
CORPORATION

January 26, 1993

Secretary of FCC
FCC Commission
1919 M Street NW
Washington, DC 20554

Dear Sir/Madam:

Enclosed are seven (7) copies of EMI's reply comments regarding ET Docket No. 92-9.

A self-addressed, stamped envelope is also enclosed. EMI would appreciate a FCC stamped copy returned to us.

Thank you for your help.

Sincerely,

Susan M. Hulick

(Mrs.) Susan M. Hulick
Engineering Secretary

smh

Encls. (8)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of	}	
Redevelopment of Spectrum to	}	ET Docket No. 92-9
Encourage Innovation in the	}	
Use of New Telecommunications	}	RM-7981
Technologies	}	RM-8004

To: The Commission

Reply Comments of EMI Communications Corporation

P.O. Box 4872
Syracuse, NY 13221

EMI appreciates this opportunity to respond to industry comments regarding the above noted Notice of Proposed Rule Making released September 4, 1992.

We regret not including our mailing address in our previous comments and hope that the omission did not cause any inconvenience.

As a common carrier operator of microwave transmission facilities in multiple frequency bands including those that will be affected by this action, EMI feels compelled to share its opinions in response to some of the comments presented in this pleading cycle.

EMI Communications Corporation (formerly Eastern Microwave) operates an extensive communications network in the Northeast region of the United States. The network is comprised of various wireless radio technologies as well as optical fiber and copper facilities.

EMI has made substantial use of the frequency bands subject to reassignment and rechannelization within this NPRM for point-to-point microwave use.

EMI provides New York State with an extensive backbone network, known as Empire Net, which is utilized by various state agencies to meet their state-wide telecommunications requirements. EMI is also the prime carrier of video signals for various public and educational television networks throughout the Northeast region.

We do not wish to minimize the public interest served with the more typical type of telecommunications traffic, which EMI also provides; however, the above noted services are of the greatest public interest and it is partly from this perspective that EMI submits its opinions.

Within the Northeast 13 state region of the U.S., EMI provides services utilizing microwave radio in the following proportions (1):

49% of the 6 GHz common carrier video transmitter paths
38% of the 11 GHz common carrier video transmitter paths
34.5% of the combined 6 & 11 GHz analog video and message transmitter paths
21.1% of the combined 6 & 11 GHz total transmitter paths (all modulation types)

With utilizing of the above noted microwave facilities, that combine all the various types of traffic, enhanced by over 25 years of meeting the telecommunications needs that serve the public interest, we are well qualified technically and procedurally to provide sound opinions and suggestions regarding FCC actions and respond to other industry comments associated with this proceeding.

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(1) Information Source, Comsearch as of September, 1992.

TABLE OF CONTENTS

Page

*** ALTERNATE SPECTRUM IN THE 2 GHz RANGE MAY BECOME AVAILABLE ***
and
*** CO-PRIMARY LICENSE STATUS ***

We reiterate our previous comments in support of the Commission in promoting domestic development of new technologies. We strongly agree that making spectrum available for such development is necessary and beneficial.

We maintain that the present utilization of all the NPRM affected frequency bands is currently substantial and, in fact, congested. The cost of migration from the 2 GHz bands to the proposed frequency bands represents significant costs that will ultimately be burdened by consumers and rate payers and aggravate the congestion that already exists.

Indeed, Personal Communications Systems may greatly serve the public interest and the 2 GHz range appears to be well suited for the application, but EMI continues to stress and further the shared position of other commentors that it would be in the public interest to utilize 1710-1850 MHz for the displaced 2 GHz point-to-point operators. Progress with NTIA regarding this issue must continue in a most expeditious manner (1).

However, if the Commission must displace the incumbent users of the 1850-2200 MHz bands and migrate them into the bands above 3 GHz, then we strongly maintain that a 10-15 year transition period of co-primary status is required. Likewise, if the proposal of industry financial negotiations for early migration is implemented, we strongly suggest the FCC exercise restraint and conservatism where Special Temporary or Temporary Fixed Authorities may be granted.

The full Prior Coordination Notice and Public Notice processes should be steadfastly maintained as is suggested in the FNPRM.

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(1) This band is close enough to the current 2 GHz non-government allocations that the propagation characteristics would be virtually the same. Much of the equipment that is presently in operation could be retuned to operate in this frequency range which would minimize migration cost.

The exploration of feasibility for non-government sharing of this band should be concluded prior to actual migrations of existing operations.

*** EXISTING ANALOG SYSTEMS MUST BE PROTECTED ***

EMI continues to argue for the continuation of analog technical standards and channel loading requirements.

We feel that it would be a major oversight not to continue to protect the operational integrity of existing and evolving analog networks and we resubmit the statistics below which were provided in our original comments (2).

In light of these statistics, it becomes unimaginable that anyone would continue to argue against continuing to maintain analog standards. As suggested in our original comments, we reiterate here, "analog and digital standards must be maintained in tandem until the need no longer exists".

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(2) Presently there are 33,548 analog message transmitters/ receivers protected in the 4 GHz common carrier band (11,048 digital), 15,508 analog message transmitters/receivers protected in the 6 GHz common carrier band (32,871 digital) and 2,948 analog message transmitters/receivers in the 11 GHz common carrier band (13,549 digital). Information source, Comsearch as of September, 1992.

*** THE PROTECTION OF GROWTH FREQUENCIES CANNOT BE SACRIFICED ***

EMI reiterates its steadfast position that common carriers must be able to protect growth frequencies for an indefinite period of time.

In reality there are limitations that are naturally imposed by the industry itself through the Prior Coordination Notice process (CFR Part 21.100 (d).)

This is a process that disallows spectrum warehousing. We have been party to relinquishing growth frequencies when another carrier has a legitimate reason to seek such relief. Likewise, other carriers have been in similar positions having to request or relinquish growth frequencies.

In today's common carrier business environment, this type of cooperation is necessary because the pendulum swings in both directions and no single company or group of companies dominate to a point where anti-competitive spectrum warehousing is practical.

We strongly disagree with any commentors position in limiting growth frequency protection with time limit constraints. EMI maintains its opinion that such limitation could have devastating effects on the common carrier operators of wide band microwave networks.

From an Operational Fixed Service perspective it is arguable that unlimited growth protection could be abused. However, we feel that this perspective comes from a lack of experience with today's prior coordinating community.

Track record experience has shown growth frequency abuse is very rare in today's common carrier business environment.

Previously, this might not have been the case. We refer to a time when the point-to-point common carrier business environment was dominated by a few select companies. This domination fostered the perception of growth frequency protection abuse. That day is long gone and this position will be agreed with by any experienced common carrier frequency coordinator.

Because of the significant investment required to build a microwave system, EMI maintains its strong comment position and reiterates that "if the commission imposes a limitation on protecting growth frequencies, it is likely that the common carrier microwave industry, that serves the public interest, could cease to exist through lack of investment dollars".

*** THE PROPOSED COMMON CARRIER 6 GHz CHANNEL PLAN IS FLAWED***

It would appear that many of the commentors have recognized the 29.65 v/s 30 MHz frequency overlap issue related to the proposed channel plan for the 6 GHz common carrier band.

EMI's position is supported within the industry. EMI tends to agree with the channel plan that has been proposed by AT&T, but we take serious exception to maintaining only three 29.65 MHz frequency pairs without overlapping narrow band channels.

EMI argues that three frequency pairs are not enough. To strengthen this argument one just has to look at the microwave trunks that are in place today. The majority of true trunks that are in current operation already exceed three frequency pairs.

If the public interest is to be served and low cost communications services to the consumer is truly an objective, how can we justify an unrealistic limitation on the number of microwave frequency pairs when that limitation is below that which is presently serving public interest?

It seems logical that if a wide band technology, such as optical fiber, is already capitalized and implemented by a relative few companies and the technology is in competition with microwave radio that is operated by even more companies, and, if, the microwave radio technology is limited in growth potential, it will give the operators of the optical fiber technology a competitive advantage over the companies utilizing microwave radio. This type of administrative advantage must not be created in this rule making process. If this occurs, the public interest will be seriously sacrificed by trunking capabilities being dominated by the few companies that have optical fiber in place.

EMI recognizes the need for spectrum to be assigned to narrow band signals. We maintain that our original argument makes sense and is a workable solution.

Our original argument proposed that narrow band signals should start at the band edges of the present wide band allocations and work inwards, continually striving to stay as close to the band edges or guard bands as possible. This scenario is workable and has not been rebutted. However, if the Commission feels compelled to rechannelize the existing bands above 3 GHz with narrow band assignments, EMI maintains that needs of the common carrier industry dictates that the FCC protect a minimum of five frequency pairs of 29.65 MHz in the 6 GHz common carrier band. Additionally, the five pairs should follow the present channel plan so as to minimize frequency coordination complications which would result in spectrum inefficiency.

It is also imperative to include the ability for a common carrier to grow beyond the five 29.65 MHz channel pairs if additional 29.65 MHz spectrum is available in the band and the carrier shows immediate or impending need for the additional channel(s).

*** THE 6 GHz PRIVATE BAND SHOULD BE SUBJECT TO PRIOR COORDINATION***

As with many of the commentors, EMI can still see no reason why the 6 GHz private band should not be subject to the Part 21 Prior Coordination Notice process.

With the potential increased utilization of this band due to migration and band sharing the prior coordination notice process would seem to be necessary for spectrum efficiency.

This process has proven to work effectively in the common carrier bands and has minimized challenges to applications for license authorizations before the Commission.

*** REQUIRING A COMMON CARRIER TO FILE A SPECIAL SHOWING FOR CHANNELS IN EXCESS OF 15 MHz OF BAND WIDTH MAKES NO SENSE***

It is understood that from an Operational Fixed perspective, one might conclude that an operator could inefficiently utilize spectrum by constructing a wider band system than is actually required for its own traffic requirements. The reason could be for speculative purposes, Docket 82-334 allows for an Operational Fixed service licensee to lease for profit excess capacity.

It is important to understand that a common carrier cannot justify the cost of building a communications system for internal need. The common carrier would build a system to serve the public interest, selling traffic capacity for profit.

It makes no sense that a common carrier would build a system unless it could justify the cost with traffic revenue. In today's communications business environment, 15 MHz or less band width cannot be profitable on a trunk. To require a common carrier to provide a showing to the FCC for every license application which represents a channel in excess of 15 MHz of band width would be foolish. Almost every common carrier application for a trunk radio and in most cases spur radios would be accompanied by said showing. Such a requirement would only serve to add an additional processing requirement to a process that is already complex and costly.

If the Operational Fixed service industry feels that this type of showing is necessary to protect spectrum efficiency from Part 94 abuses, then it would seem logical that the Part 94 operators should be required to provide the showing not common carriers whose primary business is selling capacity.

From a common carrier perspective, if a system is not profitable it will not remain in service very long and limiting channel band width insures non-profitability.

*** GRANDFATHERING OF EXISTING EQUIPMENT IN THE AFFECTED BANDS ***

It has been suggested that spectral efficiency standards should be upgraded to reflect technological improvements that have been realized since the current standards were implemented.

This suggestion is laudable and makes sense. However, it is also suggested that all existing facilities should be forced to upgrade over a five-year transition period if the equipment fails to meet the new standards.

EMI is strongly opposed to a five-year forced upgrade requirement imposed by the FCC in this rulemaking action. We argue that said forced upgrade would first and significantly benefit the equipment manufacturers and suppliers of the upgraded equipment, conversely it would first and significantly prematurely cost the operators of the equipment that met the former standards a substantial amount of capital which would ultimately be burdened by consumers. This would not be in the public interest.

EMI stresses that existing systems operating equipment that meet the current standards must be grandfathered for a period of no less than ten years. Additionally, these systems must also be allowed to grow in rf channels and additional transmission paths utilizing the same current standards so as not to experience technical system interface limitations.